REMR MATERIAL DATA SHEET CM-SE-1.71

Enviroseal Double 7

1. NAME

Enviroseal Double 7

2. MANUFACTURER

Hydrozo, Incorporated
100' Y Street
P.O. Box 80879
Lincoln, NE 68501
Telephone: 1-800-422-1902

3. DESCRIPTION

Enviroseal Double 7 is a water-based, volatile-organic-content (VOC) compliant, clear, penetrating water-repellent sealer designed to provide long-term protection for vertical masonry and concrete block wall surfaces.

4. USES AND LIMITATIONS

Uses: To be used as a water-repellent for vertical masonry and concrete block walls.

Limitations:

5. MANUFACTURER'S TECHNICAL DATA

Total solids and active ingredients by weight: Approx. 12%
Composition: Aqueous blend of silane, and organic and inorganic oligomers
VOC: Less than 175 gal/L
Water repellency tests: 96% minimum (ASTM C 67)
Water permeance test of masonry (ASTM E 514) percentage reduction of leakage of block wall: 99.8% minimum
Moisture vapor transmission rate (ASTM E 96): 47.5 gal/ft/24 hr or 82% compared (as compared to untreated sample)
Accelerated watering (QUV) testing -- 2,000 hr: No loss in repellency
Yellowing: None
Efflorescence (NBS 883): Highly resistant
Drying time for recoat: 1 to 2 hr
Surface appearance after application: Unchanged to slight darkening

6. MANUFACTURER'S GUIDANCE FOR APPLICATION

The manufacturer recommends that a small section of the wall be coated with the sealer before application to assure desired results and coverage rates.

a. The surface should be clean and dry. Surface, air, and material temperatures should be 45 °F or higher during application.

b. Repoint any loose or disintegrated mortar and allow 72-hr drying time before application. Caulking and sealant work must be done prior to application and allowed 6- to 12-hr curing time.

c. Treat any apparent alkali or efflorescence with the proper neutralizing compound recommended by the concrete or brick supplier or distributor.

d. The activator (Part a) must be mixed in with the base (Part B) before the product is ready to use. Mix and stir thoroughly prior to and periodically during use. Keep the product from freezing in containers. If

freezing occurs, contact Hydrozo before application.

e. Application from the bottom-up will assist in uniform distribution of the sealer. Apply to saturation, with no rundown. In certain cases, a fog coat before general application will help break surface tension to assure minimum penetration of the saturation coat.

f. Normal coverage rates: (Coverage rates may vary with porosity of substrate. On extremely porous substrates, two coats may be necessary.)

Brick walls (regular): 80 to 140 ft^2/gal

Brick walls (hard burnt, dense): 100 to 180 ft^2/gal

Concrete block (regular weight): 60 to 125 ft^2/gal

Stone: Consult Hydrozo Technical Services for coverage rates

7. CORPS OF ENGINEERS' EVALUATION

Percent solids (ASTM D 1644, Method A)

Percent solids -- 10.8%

Water absorption

Mortar prisms prepared from a Type S masonry mortar and the face of clay bricks, obtained locally, were coated with the material at an application rate of 125 ft^2/gal. RILEM tubes were placed on the treated surfaces 7 days after application, and the water absorption was measured with time.

Water absorption clay brick, 3 days		Water absorption masonry mortar, 3 days	
Treated	Untreated	Treated	Untreated
0.55 ml	15.2 ml*	0.25 ml	3.6 ml*

* 4-hr water absorption

Accelerated weathering

The treated face of the clay bricks that was tested for water absorption was sliced off with a concrete saw and tested according to ASTM G 53. The specimens were tested for 2,000 hr using a time cycle of 4-hr ultraviolet light and 4-hr condensation. Water absorption was then measured using the RILEM tubes.

Water absorption, 3 days before testing	Water absorption, 3 days after 2,000 hr of testing
0.55 ml	0.55 ml

Water-vapor transmission (WVT)

Test specimens were prepared from a Type S masonry mortar measuring 7-1/2 by 7-1/2 by 1/2-in. thick. One side of the specimen was coated with the material at an application rate of 125 ft^2/gal. The WVT was then determined according to ASTM E 96. The water method was used, and the conditions during test were 90 °F and 50-percent relative humidity.

WVT for treated mortar, gal/m^2/24 hr	WVT for untreated mortar, gal/m^2/24 hr	Ratio of WVT for treated to untreated
56.8	63.4	89.6%

8. ENVIRONMENTAL CONSIDERATIONS

Reasonable caution should guide the preparation, repair, and cleanup phases of sealant activities involving potentially hazardous and toxic chemicals substances. Manufacturers' recommendations to protect occupational health and environmental quality should be carefully followed. Material safety data sheets should be obtained from the manufacturers of such materials. In cases where the effects of a chemical substance on occupational health or environmental quality are unknown, chemical substances should be treated as potentially hazardous toxic materials.

9. AVAILABILITY AND COST

Information concerning the availability and cost of Enviroseal Double 7 can be obtained by writing the manufacturer at the address given in item 2 or calling 1-800-422-1902.

10. TECHNICAL SERVICES

Information on technical services can be obtained by writing the manufacturer at the address in item 2 or by calling 1-800-422-1902.